UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMERCIAL AVAILABILITY OF APPAREL INPUTS (2005): EFFECT OF PROVIDING PREFERENTIAL TREATMENT TO COTTON SWEATERS CONTAINING CERTAIN OPEN-END SPUN YARNS FROM CARIBBEAN BASIN COUNTRIES

Investigation No. 332-465-002

February 2005

Commercial Availability of Apparel Inputs (2005): Effect of Providing Preferential Treatment to Apparel from Sub-Saharan African, Caribbean Basin, and Andean Countries

U.S. International Trade Commission Investigation No. 332-465-002

Products	**Cotton Sweaters Containing Certain Open-End Spun Yarns**
Requesting Parties	**Bernette Textile Co., LLC, New York, NY, and Outlast Technologies, Inc., Boulder, CO**
Date of Commission Report USTR Public	**February 25, 2005 March 2005**
Commission Contact	**Laura Rodriguez (202-205-3499; laura.rodriguez@usitc.gov)**

NOTICE

THIS REPORT IS A PUBLIC VERSION OF THE REPORT SUBMITTED TO USTR ON FEBRUARY 25, 2005. ALL CONFIDENTIAL INFORMATION HAS BEEN REMOVED AND REPLACED WITH ASTERISKS (***).

Summary of Findings

The yarns named in the petition filed by Outlast Technologies, Inc. and Bernette Textile Co., LLC with the Committee for the Implementation of Textile Agreements (CITA) in January 2005, and under review in this report, are identical to those named in the petition that Bernette Textile Co. filed with CITA in October 2004. CITA denied the earlier petition, stating that the subject yarns could be supplied by the domestic industry in commercial quantities in a timely manner.[1] The current petition clarifies the description of the yarns by specifying the percentage of certain acrylic fibers contained in the yarn.

Based on information currently available to the Commission, it is likely that granting duty-free treatment to U.S. imports of chief-weight cotton sweaters made in eligible Caribbean Basin countries from the subject yarns, regardless of the source of such yarns, would not have an adverse effect on a U.S. domestic industry or its workers. The Commission is unaware of any firm that makes or can make sweaters containing the subject yarns in the United States. Furthermore, because of the specialized characteristics of the sweaters made from the subject yarns, it appears that there is no U.S. production of sweaters that could act as substitutes for those made from the subject yarns. Currently, there is no domestic production of fibers, yarns, or knitted fabrics made from a blend of reclaimed cotton and acrylic staple fiber with "phase change materials" (PCMs). Furthermore, based on information currently available to the Commission, there appears to be no domestic production of yarns that have the same physical properties as the subject yarns. The proposed action would likely benefit U.S. firms making sweaters in eligible Caribbean Basin countries from the subject yarns, and their U.S.-based workers, as well as U.S. consumers.

[1] CITA's decision regarding the open-end spun yarns named in the October 2004 petition appeared in the *Federal Register* of December 31, 2004 (69 F.R. 76455). The U.S. International Trade Commission conducted its review of the yarns in its report, "Cotton Sweaters Containing Certain Open-End Spun Yarns," investigation No. 332-458-022, Nov. 2004.

Background

On January 19, 2005, following receipt of a request from the United States Trade Representative (USTR), the Commission instituted investigation No. 332-465, *Commercial Availability of Apparel Inputs (2005): Effect of Providing Preferential Treatment to Apparel from Sub-Saharan African, Caribbean Basin, and Andean Countries*, under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)). This investigation provides advice regarding the probable economic effect of granting preferential treatment for apparel made from fabrics or yarns that are the subject of petitions filed by interested parties in 2005 with CITA under the "commercial availability" provisions of the African Growth and Opportunity Act (AGOA), the United States-Caribbean Basin Trade Partnership Act (CBTPA), and the Andean Trade Promotion and Drug Eradication Act (ATPDEA).[2]

The Commission's advice in this report relates to a petition received by CITA on January 12, 2005, alleging that certain open-end spun yarns cannot be supplied by the domestic industry in commercial quantities in a timely manner. The petitioner requests that the President proclaim preferential treatment for knitted apparel made in eligible CBTPA beneficiary countries from such yarn, regardless of the source of the yarns.[3]

Discussion of the product

The petition filed by Bernette Textile Co. (Bernette), New York, NY, which designs, manufactures, and markets sweaters and other knitwear,[4] and Outlast Technologies, Inc. (Outlast), Boulder, CO, a technology firm engaged in developing phase change materials designed to balance temperatures in fibers, fabrics, and foams,[5] describes the subject yarns as open-end spun yarns[6] ranging in size from 6/1 to 18/1 English count (10.16/1 to 30.47/1 metric) and made in a blend of cotton and acrylic staple fibers.[7] The only difference between the product description provided in the initial petition and the new petition is that the new petition specifies that the subject yarns are made from "not less than 35 percent nor more than 49 percent by weight of Outlast licensed phase change acrylic staple fibers produced under license from Outlast." The new petition states that these chief-weight cotton yarns are classified in subheadings 5206.11.00 and 5206.12.00 of the Harmonized Tariff Schedule of the United States (HTS), which provide for cotton single yarn (other than sewing thread), containing less than 85 percent cotton by weight, of uncombed fibers, not put up for retail sale.[8] The yarns will be used by the petitioner to make chief-weight

---

[2] For more information on the investigation, see the Commission's notice of investigation published in the *Federal Register* of Jan. 26, 2005 (70 F.R. 3728) and consult the Commission's website at *www.usitc.gov/ind_econ_ana/research_ana/pres_cong/332/short_supply/shortsupintro.htm*.

[3] The President may proclaim such action if (1) he determines that the subject fabric or yarn cannot be supplied by the domestic industry in commercial quantities in a timely manner; (2) he has obtained advice from the Commission and the appropriate advisory committee; (3) he has submitted a report, within 60 calendar days after the request, to the House Committee on Ways and Means and the Senate Committee on Finance, that sets forth the action proposed, the reasons for such action, and advice obtained; (4) a period of 60 calendar days, beginning with the day on which he has met the requirements of (3), has expired; and (5) he has consulted with such committees on the proposed action during the 60-day period referred to in (3). In Executive Order No. 13191, the President delegated to CITA the authority to determine whether particular fabrics or yarns cannot be supplied by the domestic industry in commercial quantities in a timely manner. The President authorized CITA and USTR to submit the required report to the Congress.

[4] ***

[5] Information about Outlast Technologies, Inc. Is from the firm's website, *http://www.outlast.com*, retrieved Feb. 17, 2005.

[6] In the initial petition, Bernette stated that the yarns were "colored," open-end spun yarns with the same specifications as identified in the current petition. Although the new petition does not use the term "colored" yarns to describe the subject yarns, colored, open-end spun yarns are still the focus of the petition, according to Adam Siskind, President and Chief Financial Officer, Bernette Textile Co., telephone interview with Commission staff, Feb. 11, 2005.

[7] The English count indicates the number of 840-yard lengths of yarn in one pound (the higher the yarn number, the finer the fiber). The metric yarn number indicates the number of 1,000-meter lengths of yarn in one kilogram.

[8] Data on U.S. imports of the subject yarns are not available because the yarns are grouped with other related cotton yarns in HTS subheadings 5206.11.00 (yarns not exceeding 14 nm) and 5206.12.00 (yarns exceeding 14 nm but not exceeding 52 nm). The term "nm" means the number of 1,000-meter lengths of yarn in one kilogram.

cotton sweaters, which are classified in HTS chapter 61 (apparel, knitted or crocheted) and subject to a general rate of duty of 16.5 percent ad valorem.

Bernette reportedly is the largest sweater supplier to department store and mid-tier retailers.[9] It is the only firm licensed to design and market sweaters in the United States containing Smart Fabric Technology® developed and patented by Outlast.[10] Bernette will be the first sweater supplier to use the Smart Fabric Technology.®[11] The technology is embedded in the acrylic staple fibers, which are mixed with reclaimed and reprocessed cotton fibers and spun into yarns (i.e., the subject yarns). The acrylic fibers are made in the United Kingdom under exclusive license from Outlast and contain patented micro-encapsulated PCMs that "store, absorb, and release heat." According to the petition, garments containing this acrylic fiber are able "to store excess body heat and release it during the day, thereby making the wearer more comfortable than he or she would otherwise be." The petition also notes that the use of this particular acrylic fiber, along with the use of reclaimed and reprocessed cotton, which enables Bernette to market the sweaters as "environmentally friendly,"[12] provides the firm with "an important marketing advantage with strong appeal to many U.S. consumers."[13]

Trade sources note that the subject yarns cost substantially more than similar cotton-acrylic blended yarns made in the United States. The subject yarns cost about $*** per pound, compared with $*** per pound for cotton-acrylic yarns made domestically, that do not incorporate the proprietary technology.[14] The petitioner states that a sweater made from the subject yarns will likely sell for about $*** at retail.

As discussed later in this report, the higher cost of the subject yarns largely reflects the significant investment made in specialized equipment and production processes to produce acrylic staple fibers with PCMs and blend them into yarns with reclaimed and reprocessed cotton. A Bernette representative said that the company is willing to pay a higher price for the subject yarns because of the efficacy of the

---

[9] Outlast Technologies, Inc., Boulder, CO, news release, "Outlast Forms Partnership with Bernette Textile Company to Spin Fashionable Sweaters with a Technical Twist," Aug. 11, 2004, found at *http://www.fabriclink.com/pk/newsreleases/Outlast 0804.html*, retrieved Oct. 26, 2004.

[10] Outlast has launched its 'Smart Fabric Technology®' in outerwear, footwear, and bedding. Originally developed for NASA, Outlast fibers, fabrics and foams contain patented micro-encapsulated phase change materials (PCMs) called Thermocules®, which store, absorb and release heat, providing increased comfort to consumers. The PCMs are very small - most are around 2 microns in diameter. They have an outer durable shell. The PCMs are manufactured from a water-based emulsion and so are best suited to acrylic fiber manufacturers that use a water-based solvent system. The micro-capsules need to be prepared as a stable dispersion in the solvent system to be used and they are then introduced into the polymer stream by a late injection system. The acrylic polymer/PCM mixture needs to be mixed immediately before it is extruded through the very small holes of the spin jet. The acrylic fiber is then formed with the micro-capsules as part of the fiber structure. This process requires specialized equipment that costs about $3 million. The firm developed its first PCMs in 1994 and launched its first commercial products three years later. John Mitchell, Vice President, Business Development, Outlast Technologies, telephone interviews by Commission staff, Oct. 25 and Nov. 1, 2004; Brad Poorman, "Outlast Forms Partnership with Bernette Textile Company to Spin Fashionable Sweaters with a Technical Twist," news release, Aug. 11, 2004; Roland Cox, Market Development Manager, Amicor, email to Commission staff, Nov. 1, 2004; Paul Saunders, President & Co-Owner, Sterling Fibers, telephone interview by Commission staff, Nov. 1, 2004, and Duncan L. Edwards, Chief Operating Officer, Outlast Technologies, Inc., email to Commission staff, Feb. 11, 2005.

[11] Yarns made from acrylic staple fibers containing PCMs have been used to knit socks, hats, gloves, and other apparel articles.

[12] Bernette considers the sweaters "environmentally friendly" because the cotton used in the subject yarns is obtained by "garnetting" cutting scraps left from the production of cotton T-shirts and other cotton knitwear (i.e., recover the fibers from the fabric scraps), instead of incinerating or disposing of the scraps in landfills. Adam Siskind, President and Chief Financial Officer, Bernette Textile Co., telephone interview by Commission staff, Nov. 12, 2004.

[13] Handtags provided by Outlast to licensees state the following: "This product features Outlast smart fabric technology. It will keep you comfortable by absorbing body heat when you create too much and releasing it when you need it most. By buffering skin temperature, Outlast material reduces overheating and sweating when you're active and prevents chill when you stop. Fabric and insulations stay drier and maintain their effectiveness, so you stay comfortable all day long." Charles Bremer, Consultant, on behalf of Bernette Textile Co., email to Commission staff, Nov. 4, 2004.

[14] Spiro Pantziris, Chief Executive Officer, Spintex Yarns, Toronto, Canada, telephone interview by Commission staff, Oct. 28, 2004. According to U.S.-based Jimtex Yarns, which spins yarns from reclaimed cotton and standard staple acrylic fiber, ***. Harry Matusow, President, Jimtex Yarns, Philadelphia, PA, email to Commission staff, Nov. 11, 2004.

thermal management properties of sweaters made from the subject yarns.[15] He stated that although the difference between the subject yarns and those without PCMs is not discernible to the human eye, a person wearing a sweater knit from yarns containing PCMs would be able to notice the difference. According to Dr. Douglas Hittle, Professor and Director, Energy System Laboratory, Colorado State University, as long as a fabric has a sufficient level of PCMs in it, the thermal regulating properties of the fabric will be perceptible to the consumer. He noted that the "not less than 35 percent nor more than 49 percent by weight of Outlast licensed phase change acrylic staple fibers produced under license" that make up the subject yarn is more than sufficient to create a perceptible difference to the consumer.[16]

In a written statement to CITA in opposition to the current petition, Jimtex Yarns, a U.S. yarn producer that produces yarns from reclaimed cotton and standard acrylic staple fibers for use in sweaters, socks, upholstery, home furnishings, and crafts, stated that the "heating and cooling effects of phase change materials in clothing may have little effect on the human thermal perception" as indicated in a study conducted by the Institute for Environmental Research, Kansas State University.[17] However, according to an Outlast representative,

> "the Kansas State University study that Jimtex Yarns refers to was conducted sometime before Outlast had commercial products in the marketplace and was done using a foam PCM product that was manufactured by Frisby Technologies, a competitor of Outlast Technologies. It is not surprising that this study was not conclusive as the early foam products containing PCMs were not optimized for the market and frankly were not very good products - Frisby Technologies is now bankrupt, out of business and no longer in the marketplace. Outlast products, by contrast, incorporate the PCMs into the actual fiber, yarn and fabric of a garment and take advantage of the changing environment that was specifically called out as an efficacious use of the technology."[18]

Commission staff contacted ***.[19] *** representatives stated that garments made from the subject yarns containing PCMs are effective in helping to regulate body temperature and enhance garment comfort and performance, but that the degree of efficacy appears to vary by application. The highest effectiveness, they said, appears in garments such as gloves, boot liners, long underwear, and hats that are worn close to the skin. They noted, though, that the perception of the efficacy is subjective and that the effectiveness of the PCMs has evolved over time – from less effective when the PCMs were only in the coating of yarns and fabrics, to greater effectiveness when the PCMs were inserted into the fibers and yarns. ***

The petition states that the sweaters will be cut and assembled in El Salvador from knit fabric made in the United States and El Salvador. ***[20] A representative of Bernette states that the company is the only firm licensed to make sweaters from the subject yarns[21] and that it intends to make them mainly at its owned subsidiary in El Salvador, ***.[22] The Bernette representative contends that there are no acceptable alternative yarns for the subject yarns. He also asserts that the subject open-end spun yarns are much faster to make than ring-spun yarns, and that they provide the rugged, athletic

---

[15] Adam Siskind, President and Chief Financial Officer, Bernette Textile Co., telephone interview with Commission staff, Feb. 11, 2005.

[16] Dr. Douglas Hittle has worked as an consultant to Outlast Technologies, Inc. Hittle's method for testing the dynamic effect of adding the phase change materials to fabric has been approved and accepted as a standard method for testing the steady state and dynamic thermal performance in textile materials by ASTM International, a large voluntary standards development organization. Dr. Douglas Hittle, Professor and Director, Energy System Laboratory, Colorado State University, telephone interview with Commission staff, Feb. 15, 2005.

[17] Edward J. Farrell and David M. Schwartz, Counsel on behalf of Jimtex Yarns, written statement to CITA, Feb. 9, 2005.

[18] Duncan L. Edwards, Chief Operating Officer, Outlast Technologies, Inc., email to Commission staff, Feb. 11, 2005.

[19] ***, telephone interviews with Commission staff, Feb. 15, 2005.

[20] ***

[21] ***, telephone interview by Commission staff, Nov. 1, 2004.

[22] ***

appearance and harsher hand desired for the sweaters ***[23]***. U.S. sweater production is limited and imports supply most of the domestic market for sweaters.

Discussion of affected U.S. industries, workers, and consumers[24]

Fiber producers

Commission staff contacted the Fiber Economics Bureau[25] and two U.S. acrylic staple fiber producers, Solutia, St. Louis, MO, and Sterling Fibers, Inc., Pace, FL. A representative of the Fiber Economics Bureau stated that currently there is no production of acrylic fiber with PCMs in the United States, or in Mexico, "nor is there any probability that production will occur in the future since Acordis of the United Kingdom has an exclusive license to manufacture this specialty acrylic fiber."[26] A representative of Solutia stated that the company does not make the acrylic fiber used in the subject yarns.[27] A representative of Sterling Fibers stated that the firm made acrylic fiber with the PCMs for Outlast Technologies for two years, about three years ago.[28] The representative stated that ***. Several Outlast Technologies representatives confirmed that their firm worked with Sterling Fibers for two years about three years ago to produce acrylic fibers with PCMs.[29] They also noted, however, that Sterling filed for bankruptcy during that time[30] and that ***. Outlast Technologies representatives stated that Acordis,[31] an international manufacturer of fibers, ***.[32]

Yarn producers

The only known firm that currently produces open-end spun yarns from a blend of reclaimed cotton and acrylic staple fiber, in the United States, is Jimtex Yarns, Inc.[33] According to a Jimtex representative, although the firm does not make the subject yarns (i.e., yarns made from a blend of reclaimed cotton and staple acrylic fiber containing PCMs), it does spin yarns from reclaimed cotton and staple acrylic fiber (predominantly 74 percent cotton, 24 percent acrylic, and 2 percent other fibers) at its plant in Lincolnton, GA. The plant uses the open-end spinning system to produce the cotton-acrylic blend yarns. Jimtex's open-end spun yarns are sold to customers that make men's and women's sweaters, gloves, socks, ***, T-shirts, sweatshirts, knit caps, and some home textiles. The Jimtex representative noted that although

---

[23] ***

[24] In general, the manufacturing progression for textiles is: (1) fibers are processed into yarns, (2) yarns are made into fabrics, (3) fabrics are cut into components, and (4) components are sewn into finished goods. This section repeats the detailed industry discussion provided in the Commission's earlier report on the subject yarns almost verbatim except where relevant new information was provided in the current petition.

[25] The Fiber Economics Bureau is the Statistics division of the American Fiber Manufacturers Association, Inc., the trade association representing U.S. producers of synthetic and cellulosic fibers.

[26] Frank Horn, President, Fiber Economics Bureau, email to Commission staff, Oct. 29, 2004.

[27] Mark Bass, Business Director- Acrylic Fibers, Solutia, telephone interview with Commission staff, Oct. 29, 2004.

[28] Paul Saunders, President and Co-Owner, Sterling Fibers, telephone interview with Commission staff, Nov. 1, 2004.

[29] John Mitchell, Vice Presdient, Business Development, telephone interview with Commission staff, Oct. 27, 2004 and Brad Poorman, Senior Vice President, Sales and Marketing, Outlast Technologies, telephone interview with Commission staff, Nov. 16, 2004.

[30] Sterling and its subsidiaries filed for bankruptcy in 2001. See "Sterling Chemicals, Inc. - Company Profile," found at *http://biz.yahoo.com/ic/51/51332.html*, retrieved Nov. 17, 2004.

[31] Acordis, headquartered in the Netherlands, is a multinational group of businesses supplying customers worldwide with man-made fibers and specialty materials for industrial, textile, medical, and hygiene applications. It has production facilities in Europe, including the United Kingdom, the United States, and South America.

[32] Brad Poorman, Senior Vice President, Sales and Marketing, Outlast Technologies, Inc., telephone interview with Commission staff, Nov. 16, 2004.

[33] Information on Jimtex Yarns is from its website at *http://www.jimtexyarns.com*, retrieved Feb. 17, 2005. Outlast Technologies has granted a license to a U.S. firm, Pharr Yarns, that produces 100 percent ring-spun acrylic yarn for the production of knit garments such as socks, gloves, and hats made from ring-spun yarns containing PCMs rather than open-end spun yarns.

production of cotton-acrylic blend yarns requires a specialized process, it is not particularly difficult.[34] He asserted that in addition to Outlast Technologies, other companies offer fibers with thermostatic properties, such as Thermax® and CoolMax®.[35] He also noted that Jimtex has a broad inventory of "fashion" colors, at least 50 that it can offer its customers from the myriad scraps that its parent company collects and it can blend various colors together, as well, to create different tones.

In its written submission to CITA in opposition to the first petition concerning the subject yarns, Jimtex Yarns stated that it has been making "this type of yarn for chief weight cotton sweaters since 1998" and in 2004 supplied colored open-end spun yarn blended from reclaimed and reprocessed cotton and various natural and solution-dyed acrylic staple fiber (known as "PDF") to Bernette Textile Co. for its El Salvador account.[36] Jimtex Yarns further noted that it has excess manufacturing capacity available to produce even more yarn and could add even more capacity. Jimtex Yarns also stated that its yarns are nearly identical in all respects to the yarns manufactured by Spintex, Bernette's Canadian supplier, and further noted that both companies use similar and readily available cotton carding machines and cotton open-end spinning machines to produce the yarns. Jimtex Yarns also asserted that, if requested, it would be able to make this product or a commercial substitute that has similar thermostatic/thermal-regulating/user-comfort properties and that it currently manufactures yarn products utilizing other acrylic fiber technologies.

In its written submission to CITA in opposition to the current petition, Jimtex Yarns asserted that it has the capacity and can also can make the investment required to modify its production processes to produce the subject yarn in commercial quantities in a timely manner.[37] Jimtex Yarns stated that the effectiveness of the subject yarns in imparting thermal management to sweaters made from same is inconclusive. Jimtex furthermore states that "no good faith attempt was made to source the subject yarn production in the United States."

According to a representative of Outlast Technologies, "there is no other viable substitute product that provides our unique, patented and proprietary introduction of PCMs into acrylic fibers that actually increases the ability of a yarn, fabric and garment to absorb latent energy, store that energy, and release the stored energy into a clothing system...Ours is a truly unique technology that incorporates PCMs that actively and dynamically work with the body and the environment to provide superior comfort and performance...The graphic results of the DSC testing (Differential Scanning Calorimiter, which measures the capacity of a material to store or release latent energy) shows traditional, Jimtex Yarns 'substitute technology' yarns to have absolutely no capacity to store or release energy..."[38]

---

[34] Another industry representative stated that there is nothing unique about spinning acrylic fiber with reclaimed cotton. However, she emphasized that spinning the subject yarns from a blend of reclaimed cotton with acrylic staple fiber that contains PCMs embedded into it presents a unique challenge. It took time and considerable financial investment to develop a special process to ensure that the PCMs remained intact and undamaged by the spinning process. The resulting yarn is expensive. *** Mary Vane, Director-International Trade and Business Development, Invista, telephone interview with Commission staff, Nov. 4, 2004.

[35] CoolMax® is a "moisture transport fiber" developed by DuPont that provides wicking capability. It is a four-channel fiber that when spun into a fabric helps wick moisture quickly away from the skin (when the body perspires) to the outer layer of the fabric. CoolMax® is used in men's and women's underwear, hosiery/socks, T-shirts, sports bras, hats/gloves, and pants/shorts. CoolMax® focuses on moisture management rather than temperature management. Mary Vane, Director-International Trade and Business Development, Invista (***), telephone interview with Commission staff, Nov. 4, 2004, and DuPont CoolMax Performance Fabrics, "CoolMax, The High Tech Fabric That Keeps You Dry and Comfortable," found at *http://www.fabriclink.com/pk/coolmax/home.html*, retrieved Nov. 4, 2004. Information on Thermax® was not readily available to Commission staff.

[36] Information in this paragraph is from Edward J. Farrell and David M. Schwartz, Counsel, on behalf of Jimtex Yarns, written submission to CITA, Nov. 4, 2004.

[37] Edward J. Farrell and David M. Schwartz, Counsel, on behalf of Jimtex Yarns, written statement to CITA, Feb. 9, 2005.

[38] Duncan L. Edwards, Chief Operating Officer, Outlast Technologies, Inc., email to Commission staff, Feb. 11, 2005.

A representative of Outlast Technologies stated that Outlast licenses all business relationships[39] with its customers and manufacturers (along the entire production chain) to ***[40]***. Outlast said it sources the acrylic fiber yarn containing PCMs exclusively from Acordis, whose facility in the United Kingdom uses highly specialized equipment to inject the PCMs into the acrylic fiber.

According to Outlast, until its partnership with Spintex Yarns,[41] the firm had not been able to find any yarn spinner that could produce a yarn made from a blend of its acrylic fiber containing PCMs with reclaimed cotton.[42] According to Spintex, ring spinning cannot be used to produce a yarn made of acrylic fiber with PCMs.[43] A Spintex representative stated that the firm spent 18 months and invested hundreds of thousands of dollars to retool its equipment to create a unique open-end spinning method that can produce yarns made from a blend of reclaimed cotton and acrylic fiber with PCMs without damaging the PCMs.[44] The production processes for the subject yarns that Spintex developed are proprietary and are protected by exclusive licensing arrangements. Spintex has recently initiated efforts to patent its production process for the subject yarn.[45] A Spintex official also stated that the firm can make any color yarn ***.[46] These benefits contrast with what other yarn spinners offer because their yarn color selections are limited primarily to the color of the scraps they obtain from the leftovers of roll goods that are made into T-shirts and other garments.[47] According to an Outlast representative, other yarn spinners may offer a variety of colors, but sometimes their blending of colors results in a "heathered" look rather than rich, solid colors.[48]

According to a Bernette representative ***[49] However, Bernette found that they are not equipped to spin the blend that Bernette requires. Other yarn spinners they contacted, including Parkdale Yarns, Avondale Mills, and Frontier Yarns, indicated that they were not interested in supplying the subject yarn in the color assortments that Bernette requires. ***[50]***[51] The Bernette official said that since Asian firms dominate the sweater market, Bernette constantly seeks unique, innovative products in order to compete. ***

Views of interested parties

No written submissions were filed with the Commission.

---

[39] ***

[40] All of the information in this paragraph is from Jeff Siskind, President and Chief Operations Officer, Bernette Textile Co., telephone interview with Commission staff, Nov. 17, 2004, and John Mitchell, Vice President, Business Development, Outlast Technologies, Inc., telephone interview with Commission staff, Oct. 27, 2004.

[41] Spintex Yarns, a leading producer of cotton and cotton blend yarn made primarily from recycled components, developed an open-end spinning process to produce the subject yarn. John Mitchell, Vice President, Business Development, Outlast Technologies, Inc., telephone interview with Commission staff, Oct. 25, 2004.

[42] About 20 to 30 other companies worldwide reportedly attempted to produce a yarn from a blend of reclaimed cotton with acrylic fibers that contain PCMs. None of these firms was successful. Spiro Pantziris, Chief Executive Officer, Spintex Yarns, Toronto, Canada, telephone interview with Commission staff, Oct. 28, 2004. ***

[43] Except where otherwise noted, information in this paragraph is principally from a Commission telephone interview with Spiro Pantziris, Chief Executive Officer, Spintex Yarns, Oct. 28, 2004.

[44] Open-end spun yarns, in addition to providing a quicker turnaround than ring spun yarn, also provide the rugged, athletic appearance and harsher hand desired for the sweaters Bernette intends to market to men. Charles Bremer, Consultant on behalf of Bernette Textile Co., email to Commission staff, Nov. 4, 2004.

[45] Spiro Pantziris, Chief Executive Officer, Spintex Yarns, telephone interview with Commission staff, Nov. 18, 2004.

[46] *** Spiro Pantziris, Chief Executive Officer, Spintex Yarns, Toronto, Canada, telephone interview with Commission staff, Nov. 12, 2004.

[47] John Mitchell, Vice President of Business Development, Outlast Technologies, Inc., telephone interview with Commission staff, Oct. 25, 2004.

[48] John Mitchell, Vice President of Business Development, Outlast Technologies, Inc., telephone interview with Commission staff, Oct. 25, 2004.

[49] Charles Bremer, Consultant, on behalf of Bernette Textile Co., email to Commission staff, Nov. 4, 2004.

[50] Charles Bremer, Consultant, on behalf of Bernette Textile Co., email to Commission staff, Nov. 4, 2004.

[51] Adam Siskind, President and Chief Financial Officer, Bernette Textile Co., telephone interview with Commission staff, Feb. 11, 2005.

Probable economic effect advice[52]

Based on information available to the Commission, it is likely that granting duty-free treatment to U.S. imports of chief-weight cotton sweaters made in eligible CBTPA beneficiary countries from the subject yarns, regardless of the source of such yarns, would not have an adverse effect on a U.S. domestic industry or its workers. Based on information available to the Commission, currently there is no U.S. production of sweaters made from the subject yarns and, because these sweaters can be considered a new unique product, they will not likely compete with existing sweater lines. Although there are sweaters that offer either heating or cooling properties or moisture management to the end consumer, there appear to be none that are produced in the United States that offer both heating and cooling properties in the same garment. Furthermore, production of the sweaters spun from the subject yarns will target a small, high-end segment of the U.S. sweater market (with a price point averaging $***) that will not compete with existing sweater lines.[53] In addition, because imports already supply most of the domestic market for cotton sweaters, it is unlikely that granting the petition would displace U.S. production of sweaters. *** The proposed preferential treatment also would likely benefit U.S. consumers of sweaters made from the subject fabrics to the extent that importers pass on some of the duty savings to retail consumers.

Granting the petition will likely not have an adverse impact on U.S. fiber, yarn, or fabric producers and their workers because currently there is no domestic production of fibers, yarns, or knitted fabrics made from a blend of reclaimed cotton and acrylic staple fiber with PCMs. Bernette Textile Co. is the only U.S. firm licensed to knit fabrics from yarns containing the PCMs and there appears to be no like or substitutable fabrics made domestically. Based on information available to the Commission, there also appears to be no domestic production of yarns that have the same physical properties as the subject yarns. The subject yarns are the only known yarns of textile materials with both heating and cooling properties, whereas other U.S. yarns made with thermal properties, such as Coolmax,® either offer cooling or heating but not both, or they handle moisture management only. The differentiation in yarns is further supported by the fact that the subject yarns are sold at least double the price of yarns spun domestically from reclaimed cotton and standard acrylic staple fiber.

Information available to the Commission also suggests that the domestic industry still does not have the specialized technology in place or necessary licenses to produce yarns made from a blend of reclaimed cotton and staple acrylic fibers containing PCMs. Although U.S.-based Jimtex Yarns asserts that, if requested, it would be able to make the subject yarns or a commercial substitute, it currently does not. Furthermore, it appears that Jimtex Yarns would not be able to produce the subject yarns in a timely manner because it lacks the specialized equipment or necessary licenses required. A representative of Spintex Yarns of Canada said that it needed 18 months and an investment of several hundred thousand dollars to develop a unique, open-end spinning process to produce the subject yarns. ***

It appears unlikely that the proposed preferential treatment would have any adverse impact on any segment of U.S. industry because (1) the scope of the petition is narrow, both in terms of the inputs required to produce the subject yarn, and in the end-use application (sweaters) in contrast to the wider set of end use-applications (e.g., socks, underwear, and sweaters) for domestically produced cotton-acrylic yarn, and (2) the end-use target markets are different - - department stores for the sweaters made from the subject yarns versus mass-market discounters for other garments made from domestic cotton-acrylic yarns that do not contain PCMs.

[52] The Commission's advice is based on information currently available to the Commission.

[53] Jeff Siskind, President and Chief Operations Officer, Bernette Textile Co., telephone interview with Commission staff, Nov. 17, 2004.